

Application No. 10/029,747
Response of April 17, 2003 to
Office Action of January 22, 2003

Amendments to the claims:

1. (currently amended) A—In the method for heating-manufacturing a plurality of ceramic bodies by, comprising:

A
a)—providing ceramic-forming raw materials and blending the raw materials with an effective amount of vehicle and forming aids to form a plastic mixture therefrom; and thereafter forming the plastic raw material mixture into a plurality of green bodies;

b)—placing each one of said plurality of green bodies in proximity to an adjacent one of said plurality of green bodies; and drying the plurality of green bodies with microwave energy, the improvement wherein:

the green bodies are ceramic honeycomb bodies and the plurality of green bodies is subjected to microwave energy in a densely packed array with spacing between adjacent bodies at no more than 1/2 the wavelength of the microwave energy such that upon heating with electromagnetic waves each green body is subject to no more than about 1.5 times the power density at the boundary than in the bulk thereof; and

c)—drying the green bodies utilizing energy in the form of electromagnetic waves.

✓ 2. (canceled).

✓ 3. (canceled).

✓ 4. (canceled).

✓ 5. (canceled).

A 2 6. (currently amended) The method of claim 1, wherein said ceramic body is a honeycomb cellular cordierite body bodies are cordierite honeycomb bodies.

✓ 7. (canceled).

A 3 8. (currently amended) The method of claim 1, wherein said ceramic honeycomb bodies are body is a silicon carbide honeycomb bodies.

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9. (currently amended) The method of claim 6 which comprises the further step of, further comprising:

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d) —heating/firing the plurality of green bodies up to a maximum temperature of between about 1360 °C and about 1435 °C to produce fired bodies that are predominantly cordierite, wherein the firing comprises:

utilizing a combination of microwave and convective or radiative heating during periods where the green bodies are subject to an endothermic reaction or phase transition, while

maintaining each one of said plurality of green bodies in proximity to an adjacent one of said plurality of green bodies such that each green body is subject to no more than about 5 times the microwave power density at the boundary than in the bulk thereof.

10. (original) The method of claim 9, wherein the firing comprises utilizing a combination of microwave and convective or radiative heating during the clay water loss region ranging from a temperature of from about 450 °C to about 600 °C.

11. (original) The method of claim 9, wherein the firing comprises utilizing a combination of microwave and convective or radiative heating during the talc water loss region ranging from a temperature of from about 830 °C to about 1000 °C.

12. (canceled).